



July 25, 2011

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

**Re: "Need for Speed" Information for Consumers of Broadband Services, CG
Docket No. 09-158, WC Docket No. 04-36, CC Docket No. 98-170**

Dear Ms. Dortch:

On July 25, 2011, I spoke with Walter Johnston, Chief, Electromagnetic Compatibility Division, Office of Engineering and Technology, and Deborah Broderon, Legal Advisor, Consumer and Governmental Affairs Bureau, about the type of advice that the FCC might give to consumers to help them better understand the results of the broadband performance test project.

I believe that access to very high speed broadband is important, both to the value of improved access to the Internet and the fact that increasing Internet access speeds simplifies issues associated with quality of service, latency, large file transfer and the overall support of media content based applications. Specifically, jitter and latency effectively disappear or are minimized at rates of 100s of Mbps, and as a result many applications that are otherwise sensitive to disruptions at slower speeds become easier to support. The challenge is to communicate to consumers the value of very high speeds, as the majority will not have had a chance yet to experience this kind of performance.

As core speeds increase, so do speeds available at on the edge, and the edge is where the most dynamic changes happen. Thus, high access speeds are better suited to accommodate these dynamics. Similarly, the variation of data rate requirements is highest at the edge, and is less relevant for the core. Jitter is usually located on the edge, rather than at the core, of a network.

In terms of specific advice to consumers, I would recommend that they first consider the reliability of the ISP's network. Next, both upload and download speed are important, because consumers are increasingly in a position where they will be both sharing and accessing large files that contain high definition video and other elements that require a faster Internet connection. Finally, consumers should consider the affordability of their broadband access and my recommendation would be for the consumer to purchase the highest speed service they can afford.



Although many consumers may feel that they need only “basic” access to the web to check their email and browse web pages, this type of experience is already disappearing, as pages are increasingly interactive. This trend of increasing interactivity will only increase with the introduction of HTML5. Web pages are increasingly collages of information assembled from multiple sources, and so consumers need higher speeds to allow all pieces of each web page to come together. Even if all a consumer is doing is checking email, this can be challenging at 1 Mbps, because of the likelihood of receiving large attachments. Moreover, content, application, and service providers do not necessarily design for the consumer with the slowest broadband speed, or pay attention to what kinds of speeds consumers actually have. When such providers do pay attention to the needs of consumers with limited bandwidth, this narrows the span of things that such providers can try out to give consumers, and thus hinders innovation.

Sincerely,

_____/s/_____

Vint Cerf

Chief Internet Evangelist, Google

CC:

Walter Johnston

Deborah Broderon